

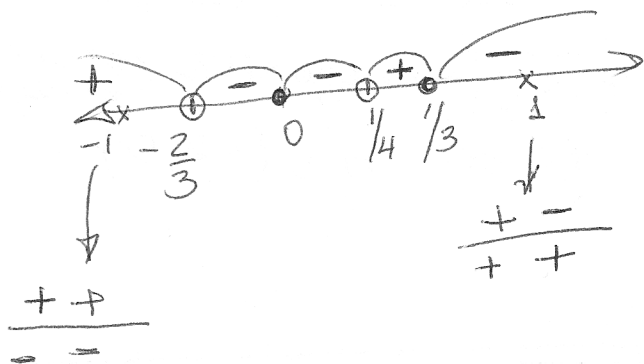
4.

$$\frac{3y^2 - 9y^3}{12y^2 + 5y - 2} \geq 0$$

$$\frac{3y^2(1-3y)}{(4y-1)(3y+2)} \geq 0$$

zeros:  $3y^2 = 0$   $1-3y = 0$   
 $y = 0$   $3y = 1$   
 $y = \frac{1}{3}$

Undefined:  $4y-1 = 0$   $3y+2 = 0$   
 $y = \frac{1}{4}$   $3y = -2$   
 $y = -\frac{2}{3}$



$\geq 0 \rightarrow$  positive and zeros  
 $(-\infty, -\frac{2}{3}) \cup (\frac{1}{4}, \frac{1}{3}] \cup \{0\}$

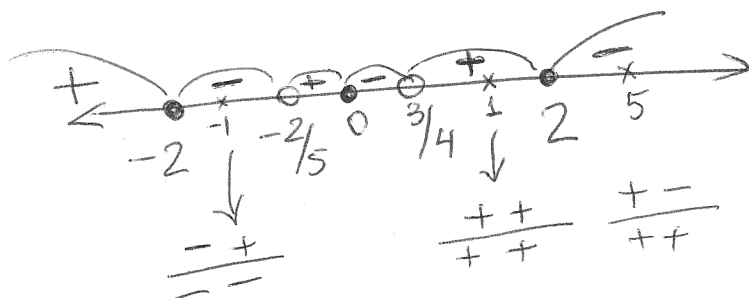
5

$$\frac{6y^3(4-y^2)}{(4y-3)(5y+2)} \leq 0$$

$$\frac{6y^3(2-y)(2+y)}{(4y-3)(5y+2)} \leq 0$$

zeros:  $6y^3 = 0$   $2-y = 0$   $2+y = 0$   
 $y = 0$   $y = 2$   $y = -2$

Undefined:  $4y-3 = 0$   $5y+2 = 0$   
 $y = \frac{3}{4}$   $y = -2/5$



$\leq 0 \rightarrow$  negative or zero

$[-2, -2/5) \cup [0, 3/4) \cup [2, +\infty)$